

III. DISCUSSION OF THE HEARING

The Commission conducted a generic proceeding on this matter on February 3, 2015, in the hearing room of the Commission with the Honorable Nikiya “Nikki” Hall presiding. At the outset of the hearing, ORS counsel described the Settlement Agreement. The methodology proposed in the Settlement Agreement (“Methodology”) is as follows:

Net Energy Metering (“NEM”) Methodology

$$\begin{aligned}
&+/- \text{ Avoided Energy} \\
&+/- \text{ Energy Losses/Line Losses} \\
&+/- \text{ Avoided Capacity} \\
&+/- \text{ Ancillary Services} \\
&+/- \text{ Transmission and Distribution (“T\&D”) Capacity} \\
&+/- \text{ Avoided Criteria Pollutants} \\
&+/- \text{ Avoided CO}_2 \text{ Emission Cost} \\
&+/- \text{ Fuel Hedge} \\
&+/- \text{ Utility Integration \& Interconnection Costs} \\
&+/- \text{ Utility Administration Costs} \\
&+/- \text{ Environmental Costs} \\
&= \text{ Total Value of NEM Distributed Energy Resource}
\end{aligned}$$

The following table details the components of the Methodology.

Methodology Component	Description	Calculation Methodology/Value
+/- Avoided Energy	Increase/reduction in variable costs to the Utility from conventional energy sources, i.e. fuel use and power plant operations, associated with the adoption of NEM.	Component is the marginal value of energy derived from production simulation runs per the Utility's most recent Integrated Resource Planning (“IRP”) study and/or Public Utility Regulatory Policy Act (“PURPA”) Avoided Cost formulation.
+/- Energy Losses/Line Losses	Increase/reduction of electricity losses by the Utility from the points of generation to the points of delivery associated with the adoption of NEM.	Component is the generation, transmission, and distribution loss factors from either the Utility's most recent cost of service study or its approved Tariffs. Average loss factors are more readily available, but marginal loss data is more appropriate and should be used when available.
+/- Avoided Capacity	Increase/reduction in the fixed costs to the Utility of building and maintaining new conventional generation resources associated with the adoption of NEM.	Component is the forecast of marginal capacity costs derived from the Utility's most recent IRP and/or PURPA Avoided Cost formulation. These capacity costs should be adjusted for the appropriate energy losses.

Methodology Component	Description	Calculation Methodology/Value
+/- Ancillary Services	Increase/reduction of the costs of services for the Utility such as operating reserves, voltage control, and frequency regulation needed for grid stability associated with the adoption of NEM.	Component includes the increase/decrease in the cost of each Utility's providing or procurement of services, whether services are based on variable load requirements and/or based on a fixed/static requirement, i.e. determined by an N-1 contingency. It also includes the cost of future NEM technologies like "smart inverters" if such technologies can provide services like VAR support, etc.
+/- T&D Capacity	Increase/reduction of costs to the Utility associated with expanding, replacing and/or upgrading transmission and/or distribution capacity associated with the adoption of NEM.	Marginal T&D distribution costs will need to be determined to expand, replace, and/or upgrade capacity on each Utility's system. Due to the nature of NEM generation, this analysis will be highly locational as some distribution feeders may or may not be aligned with the NEM generation profile although they may be more aligned with the transmission system profile/peak. These capacity costs should be adjusted for the appropriate energy losses.
+/- Avoided Criteria Pollutants	Increase/reduction of SO _x , NO _x , and PM ₁₀ emission costs to the Utility due to increase/reduction in production from the Utility's marginal generating resources associated with the adoption of NEM generation if not already included in the Avoided Energy component.	The costs of these criteria pollutants are most likely already accounted for in the Avoided Energy Component, but, if not, they should be accounted for separately. The Avoided Energy component must specify if these are included.
+/- Avoided CO ₂ Emissions Cost	Increase/reduction of CO ₂ emissions due to increase/reduction in production from each Utility's marginal generating resources associated with the adoption of NEM generation.	The cost of CO ₂ emissions may be included in the Avoided Energy Component, but, if not, they should be accounted for separately. A zero monetary value will be used until state or federal laws or regulations result in an avoidable cost on Utility systems for these emissions.
+/- Fuel Hedge	Increase/reduction in administrative costs to the Utility of locking in future price of fuel associated with the adoption of NEM.	Component includes the increases/decreases in administrative costs of any Utility's current fuel hedging program as a result of NEM adoption and the cost or benefit associated with serving a portion of its load with a resource that has less volatility due to fuel costs than certain fossil fuels. This value does not include commodity gains or losses and may currently be zero.
+/- Utility Integration & Interconnection Costs	Increase/reduction of costs borne by each Utility to interconnect and integrate NEM.	Costs can be determined most easily by detailed studies and/or literature reviews that have examined the costs of integration and interconnection associated with the adoption of NEM. Appropriate levels of photovoltaic penetration increases in South Carolina should be included.

Methodology Component	Description	Calculation Methodology/Value
+/- Utility Administration Costs	Increase/reduction of costs borne by each Utility to administer NEM.	Component includes the incremental costs associated with net metering, such as hand billing of net metering customers and other administrative costs.
+/- Environmental Costs	Increase/reduction of environmental compliance and/or system costs to the Utility.	The environmental compliance and/or Utility system costs might be accounted for in the Avoided Energy component, but, if not, should be accounted for separately. The Avoided Energy component must specify if these are included. These environmental compliance and/ or Utility system costs must be quantifiable and not based on estimates.

The Settlement Agreement was accepted into the record as Hearing Exhibit 1. Prior to the hearing and without objection from the remaining parties, the Commission granted SCE&G, Duke, SBA and ORS permission to utilize panels for the presentation of witnesses.

SCE&G presented W. Keller Kissam as its first witness. Witness Kissam provided information confirming SCE&G's commitment to promoting distributed renewable generation in South Carolina and supporting the Commission's adoption of the Settlement Agreement. Witness Kissam discussed SCE&G's current solar resources, which include a partnership with Boeing that resulted in installation of 2.6 megawatts of solar laminate on top of their aircraft manufacturing facility, and other planned projects. Additionally, witness Kissam testified that planned projects add up to fifty (50) megawatts of utility-scale solar to its system. Regarding the Act, witness Kissam briefly discussed its three primary aspects: net energy metering ("NEM"), distributed energy resource ("DER") program, and solar leasing.